

ABSTRACT

A preform (15) having a clad part of PVDF and a core part of PMMA is manufactured. The preform (15) is partially heated in a heating furnace (74) of 240 °C. The preform (15) is subject
5 to the melt-drawing process to form a plastic optical fiber (17). The drawing tension to the preform (15) is measured by use of a drawing tension measure device (76). Based on the measured value, a drawing roller pair (78) adjusts the drawing tension to be 3.8 MPa. The plastic optical fiber (17) is fed via a dancer roller
10 (82) and rollers (84, 86) toward a bobbin (87) to wind the plastic optical fiber (17). A winding tension measure device (85) measures the winding tension to the POF (17). Based on the measured value, the dancer roller (82) changes its position to adjust the winding tension to be 2.5 MPa.